question real well.

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I would expect that there should be performance requirements to support any claimed cutoff, and it doesn't disturb me that much that they can detect a drug below the cutoff. I would expect that they should be able to.

But that I would certainly like to look at that. Usually for a qualitative test of this sort, you are actually in the fairly linear portion of the curve when you are near the cutoff. So that analytically they perform fairly well.

And the tests are qualitative because when you go to much higher concentrations, then you lose the linearity, but you don't care because they are just positive. So I would be interested if the FDA might even want to look at just how linear they are in this region. That's all.

DR. KURT: Tom Kurt. I agree with the previous speakers and would like to point out that the kits that are being produced should be used exactly as they are labeled, and that shortcuts or dividing them up so that they are being used on two specimens, et

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cetera, is to save funds or a kit being reused, and 1 rejuvenated with some other re-agents, et cetera, is not what is supposed to be done. It is supposed to be used exactly as it is there, with the re-agents contained within. DR. WILKINS: Dr. Wilkins.

With respect to the first question, I think that I agree with Dr. Kroll that I think, if anything, that I think the plus 50 percent and the minus 50 percent is somewhat liberal.

I would be more in favor of tightening that rather than widening that range to minus a hundred percent, or plus a hundred percent. I mean, I don't see the utility of the test or the benefit to the consumer having quite that broad of a range.

I also might suggest that at least in the guidance document that the term negligible performance error be clearly defined for this issue, because I think that leads to a 1ot of interpretation variability, and that probably needed to be clearly outlined.

DR. EVERETT: James Everett. Without the

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later aggression data and some evidence of what the standard deviation would be, it is difficult to tell whether the plus or minus 50 percent would include the majority of samples or actually leave out a significant number of samples.

But routinely a plus or minus 50 percent should include the majority of samples clearly, as opposed to screening out a lot of samples. I am not sure if the manufacturers could actually meet such criteria.

And again trying to define what the negligible performance error would be, again that is difficult to interpret without some data to help evaluate whether the linear aggression curve actually covers the majority of data that the test kits would collect, because that is what you would like to do.

And that is that you would like to be able to put the majority of samples in that range, and then decide what the deviation should really be; whether it is a plus or minus 25 percent, or plus or minus 50 percent.

But in essence, to start with, I think a

cutoff

You

plus or minus 50 is probably reasonable to start. 1 I suggest that once a kit is developed and the data is 2 presented that that would have to be modified. 3 4 And then as it relates to question number 5 eight, should there be certain performance 6 requirements to support claimed 7 concentration; again, you need the linear regression data to determine that. 8 But, of course, that is standard for any statistical value that you will need those numbers. 10 11 And if you are going to use a cutoff to 12 apply to whether or not a sample is negative or positive, there should be some data to back that up. 13 14 So clearly I am in support of number eight. 15 That is, there should be some performance requirements to support the claimed cutoff. 16 17 should just pick one out of the air. 18 goes without saying. 19 DR. BUSH: Donna Bush. As to the first 20 question, the FDA suggests that OTC devices render 21 negligible performance error at plus or minus 50

22

percent of the cutoff.

This is reasonable, and very

reasonable.

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When you think about what this first initial test is part of, it is part of a system of confirmation. So you want to get an accurate and reliable -- a good feed into the confirmatory process for those that need to be there, and you don't want to miss some that should be going on to confirmation.

So you don't want to miss on the high side, and the more on the low side that you get going in, you are going to get laboratory confirmed negatives coming back.

So people are going to have doubt and wonder what is going on here with how tight that bell curve is around the cutoff. So in a laboratory, plus or minus 50 percent error would generate the antennae to go up, and for one to start looking at what is going on in your testing system.

So I think that is applicable also in this type of technology. Visually read devices.

Absolutely. There should be performance requirements to support the claimed cutoff.

And it is easy to do; whether it be the

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standard bell curve that goes back to the days of 1 radio amino assay, and you can talk about linear 2 curves based on many 3 the approaches to finding a binding criteria. That's all. 5 MR. REYNOLDS: Stan Reynolds. On question three, I agree with Dr. Wilkins and Dr. Everett that 6 7 you do need to define your negligible performance 8 error. 9 And also the comment that Dr. Henderson made earlier, in that it would also be good to have 10 positive and negative predictive values, so that you 11 know in your population how frequently you may be 12 13 getting a false positive or false negative. 14 This is something that you know occurs in one out of every 100 patients, and you get a false 15 negative, and you have someone that you have a strong 16 17 suspicion may be a drug abuser, and you may not accept 18 that value, and say maybe I need to do additional 19 testing. If on the other hand it only occurs one in 20 every thousand, you may accept it. So I think that 21 22 you need both of these items for number three.

On question number eight, obviously you have to show how you came up with your cutoff. I don't think that is a question. But the second question because that if you set your cutoff at a value that is different from the absolute sensitivity in your system does that really matter.

In other words, if your system is actually going to be more sensitive than what you are saying your cutoff is, I don't see what the issue is there. But you have to be able to document that whatever you have established your cutoff is that it is reasonable, and you have documentation to support that.

DR. LASKY: Fred Lasky. I agree with the comments that have been stated, but I would like to even get a little more specific. The issue with negligible error, negligible performance error, is a real bugaboo because when we are developing tests, we think that we have negligible error, but all too often it seems that when we come up with data, the FDA disagrees.

And of course the hundreds of times that we don't disagree, we all forget about. But the

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bottom line is that there is some definition about that is really needed. Also, I think that I was getting some mixed -- at least I was hearing what appeared to be some mixed messages about this plus or minus 50 percent. That is related to the concentration, and is compared to the cutoff, and is pretty typical of the sort of things that are used and looked at for qualitative tests. So you have a cutoff and you go down 50 percent, and you go up 50 percent, and you see how robust the test is at those points.

In the guidance document it says that essentially all samples should give the correct result, and again here essentially problematic word and needs some definition.

And I don't think that we are the group right here to make that decision, but I think it is the sort of thing that if a guidance is going to be helpful, it has to provide some guidance, and I think that is what is needed.

And another comment is that when you are dealing with qualitative tests, often times you are

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not dealing with linear relationships. So those statistics often times don't help.

But there was a guidance that was produced

by ECCLS, the European Committee for Clinical Lab Standards, which is no longer in existence, but fortunately the document still exists, that I think is excellent to consider for determining the characteristics of a qualitative test, in general, and not just the drugs-of-abuse.

And obviously with drugs it is going to get a lot hairier because of the impact of metabolites on positive reports and negative reports if a testis not quite sensitive enough.

With regard to number eight, I also agree that the question needs some clarification, but as Mr. Reynolds mentioned, often times the manufacturer will have data certainly to support the claim.

The FDA requires that and if there is any hope of getting a test cleared or approved, we have to have data in order to support a claim. But also a manufacturer often times may make a claim that is not quite as good, whatever that means, as what has been

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submitted in order to make the test more robust for 2 the way it is intended. So when I look at that question, I am not 3 4 I think Mr. Reynolds mentioned, if that limitation is good for the user, or if it is bad for 5 6 the user, in terms of providing some confusion or 7 clarity. 8 And I think that is really what has to be looked at, and how the numbers are going to be used, 9 and whether or not it is really going to help the end 10 user interpret what the test kit is supposed to tell 11 him. 12 13 So I guess more guidance and definition is 14 really what I am looking for. DR. KROLL: All right. 15 Thank you. Then 16 we can go to the next group of questions. 17 DR. COOPER: These are related to study 18 design questions for drugs-of-abuse. Is the study design as described in the guidance appropriate for 19 20 demonstrating performance of the device in the hands of the lay user. Please consider sample size, use of 21 22 spiked samples, concentration range, and distribution

of samples, and size of consumer study. 1 And the second question is the FDA is 2 suggesting that the sponsors conduct only the consumer 3 studies described in the OTC document when the device has already obtained prescription clearance, and are 5 there any other studies warranted other than what was 6 described in the previous question. 7 8 DR. KROLL: Okay. Thank you. Why don't 9 we start with you, Dr. Lasky. DR. LASKY: Okay. This is sort of a quick 10 11 think mode. For over-the-counter labeling, I think 12 there has been a lot of very helpful and substantial 13 guidance on how labeling should be divided for over-14 the-counter use. And I think that has been very helpful and 15 16 I don't mean to presume that the FDA is going to throw 17 all of that out, because I know that is not the case. 18 In my experience, which is not vast with OTC, but is 19 -- I do have some experience with it, when you hit

22 I think

a very sticky area.

I think the instructions for what to do

numbers with OTC devices, you really are getting into

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with the result, and how in simple lay terms it can be interpreted, including follow-up information, I think is really the key here.

If too much is -- the critical issue of too much is provided and most of it is useless, the important things are not going to be seen, and I think that is the key.

In terms of -- and so I don't advocate the use of performance data for OTC as a general guide. With regard to the study designs, I think the study designs, in terms of in the hands of the user, I think are general are fine from an overall perspective.

I do have some concerns about the very strict, I would say, requirements or guidances, in terms of the distribution of samples, because it may not really suit the need of the particular device, depending upon the full range and capability of the device.

And also as we talked about a little bit before, sometimes it is just -- it is virtually impossible to get a large number of samples at all different kinds and ends of the scale, and many times

it is more important to get many samples so that you 1 see a variety of matrix, versus the full concentration 2 in the sort of sample distribution that has been 3 4 suggested. 5 That is not to say that challenging the 6 test is unimportant. It is. But there needs to be a bit more flexibility on how that mix is actually 7 obtained. 8 9 MR. REYNOLDS: Insofar as the study design in the sample size and things of that nature, I tend 10 to defer to the chemists and statisticians as to what 11 is appropriate for the actual design in the study. To 12 me it seems reasonable, but again I would defer that. 13 14 DR. BUSH: Donna Bush. The study design question, I concur with what was presented by Dr. 15 16 Cooper earlier, in terms of the structure of that 17 study design. 1.8 And I concur with question number six, and 19 that's when the device has already obtained prescription clearance, and I concur with that. 20 21 DR. EVERETT: James Everett. I tend to 22 agree with number five, in the sense that this kind of

guidance should certainly be provided from previous devices that we looked at.

There have been instances where the manufacturer only reviewed less than five consumer individuals in the study and that was disastrous. So I think up front providing a potential manufacturer with some idea of how many consumers must be involved in the study, the sample size, as well as this information we use to determine whether or not the instrument actually works, is a very good idea, because frequently the biostatisticans again come to the forefront, and then they reorganize the data.

And it says though the manufacturer had no idea how many individuals to include, what the sample size should be, and again it is like they took the data and then matched it to some statistical calculation, and that is backwards. It shouldn't really be done that way.

So I think up front that providing that information is a very good idea; and then the other one, I think that is pretty clear that it is just necessary.

DR. WILKINS: In answer to the first question, I think that the model proposed for the consumer studies is a very fair and reasonable place to start for this type of testing. The only additional comment that I have is that in terms of the distribution of the samples -- well, that's probably not quite what I mean, but the populations, or sort of subgroups in which this is tested, that that needs to be representative of the groups in which the test kit will be used.

And I am not sure with this question when you say the distribution of the samples, if you mean the distribution of the number of samples in each of the individual categories, plus or minus 50 percent, or if you meant distribution of the samples, in terms of the types of subgroups that might be looked at.

For example, different education levels, or reading abilities, or whatever that might be. I wasn't sure what the intent of that was for that question. But I am assuming there that that means that many different groups in which the kit might be used would be included in the study or represented.

I don't

And with number six, I agree. have anything to add to that, except that I think it is reasonable to conduct only the consumer studies when it already has prescription clearance. DR. KURT: I agree with what has been said, and I agree with the guidelines as presented by Dr. Cooper earlier today, from the standpoint of performance. I am concerned that the spiked samples and those are really spiked.

the definition be carefully defined to be sure how And in question six concerning the consumer use, I think it would be helpful to the manufacturer to trial it through a small sampling of consumers before it actually gets out there to be better prepared for problems that might potentially occur, although you might not have the full 200 consumer sampling size at that point.

DR. KROLL: Looking at question five, that appears to be adequate. I think there needs to be some care taken with spiked samples. Depending on what the drug is, metabolites might be very important.

And in those cases probably it would be

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better off using real samples, and if they can dilute them with other samples that are of the same approximate matrix, and then to get the appropriate concentrations of drug that way. And that could be determined by looking or using your reference method.

You might also want to consider adding in the spiked samples as well. One thing we really have not looked at is that in some cases you have to make certain the spiked samples aren't the actual drug that you are trying to measure, and that there is no problem with being right or left oriented. That's all.

DR. MANNO: On question number five, I think everything is okay as it is presented. Dr. Wilkins brought up a point on concentration and range, and distribution of samples.

I originally thought of that as perhaps knowing what the concentration of the sample being tested is against whether you get a positive or a negative result on it, and doing your statistics on it that way. I appreciate the comments of the sponsors about the difficulty in getting a large sized sample

to test at a given concentration. 1 So I think that you could go about that 2 several different ways, but I think that generally 3 4 question five is okay. Question six, I agree with that question, and I don't have any problems with 5 going ahead and just doing the consumer study on an 6 7 already approved product. 8 DR. LEWIS: Sherwood Lewis. All of the good points have already been made by the previous 9 persons addressing these two questions and so I will 10 11 pass. 12 DR. HENDERSON: Cassandra Henderson. agree and have nothing to add other than just to point 13 out that certainly the post-marketing surveys should 14 be budgeted into all of the financial plans for the 15 16 sponsors. 17 DR. ROSENBLOOM: Rosenbloom. I agree with 18 the design as presented relative to question five, and 19 that consumer studies are all that would be needed if the device has already been approved for prescription 20 21 use. 22 All right. DR. KROLL: Dr. Gutman, are

1	there any other points that you want to clarify on
2,	these?
3	(No audible response.)
4	DR. KROLL: All right. Let's go to the
5	next set of questions.
6	DR. COOPER: Okay. I believe that this is
7	the last one. Oh, there is one more. The FDA does
8	not encourage inclusion of performance data in OTC
9	labeling. Do you feel such information should be
10	included?
11	If so, what types of studies should be
12	done to characterize performance well enough so that
13	it would be meaningful to the consumer? How should
14	performance be related to consumers in the labeling?
15	DR. KROLL: All right. Why don't we start
16	with Dr. Rosenbloom.
17	DR. ROSENBLOOM: Why don't we. I can
18	think of several reasons, but that is not the
19	question. I guess we are talking about OTC labeling
20	for all the various environments that we have been
21	discussing school, home, sports, and so on.
22	I think under the circumstances, given the

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variety of environments, that performance data should be included. In some settings, you are going to be dealing with rather sophisticated users, and actually in all settings you may be dealing with sophisticated users who want that information and others who won't.

The alternative is to give them a website to find it on, which the sophisticated users will use. They will probably find more information than you have got in the labeling anyhow if they are really interested.

But I don't see any downside to including that information. What types of studies should be done to characterize performance well enough so that it would be meaningful to the consumer? I think the kinds of statements that relate not so much to sensitivity and specificity, and those kinds of things, which a small range of consumers would be able to understand.

But things like at such and such a level, there is an X possibility, percent possibility, that the test is truly negative and that you need to get confirmation, and those kinds of statements relative

to the linear performance.

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And again you can't say what that will be without having the data in front of you, but I think people need to know what a specific result means in very specific terms, and I think that could encourage compliance with confirmatory testing.

DR. **HENDERSON:** I think there is no question that study information should be included and provided to consumers, and I certainly think that the vast majority of consumers are capable of understanding that, and I base that on trying to discuss alpha fetal protein screening with women; inner-city women in New York City, and middle class, and very educated women, and they all have difficulty understanding it.

But when given examples of false positives and false negatives, and what they may mean, they understand it, and they can make sense out of it, and make an informed decision.

DR. LEWIS: Sherwood Lewis. I certainly think that that information should be included in the labeling, and I am just curious to know why FDA does

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sort

of information, just for my own understanding. 2 DR. GUTMAN: Yes. There are at least two 3 reasons and we have obviously had internal discussions 4 and are interested in seeking outside input on this 5 There are at least two reasons. 6 7 One is that it is very hard sometimes to couch performance in a term that actually makes sense 8 to patients. It is easier said than done. 9 10 And the second is that our data threshold 11 for these submissions is clearly based on analytical studies. I wish we did know the predictive value of 12 a negative or a positive in the actual intended use 13 14 setting, but we actually don't know that. 15 And so there has been in the internal discussion about the pros and cons of putting the 16 17 performance in concerns that if the performance was not carefully couched, that 18 it could in fact 19 misrepresent the device. 20 I actually think that Dr. Rosenbloom's suggestion of indicating at certain cutoffs what 21 22 positive and negative rates might be seen, and if you

inclusion of

this

not

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encourage

the

were to try something like that, you might create 1 understandable labeling. 2 3 But actually I think it would be challenging, and I would be curious as to what the 5 rest of the group says. 6 DR. MANNO: Manno. I have nothing to add to what has already been said. 7 8 DR. KROLL: Martin Kroll. Actually, I 9 agree especially with the comments of Dr. Rosenbloom 10 and the way that he stated them. 11 DR. KURT: Tom Kurt. I agree with merging 12 some of the good ideas of Dr. Rosenbloom and Dr. Henderson, and to saying that in a simple sentence the 13 14 false positive rate, or the false negative rate is, and for further information see our website at. 15 16 So you could have some performance data in simple nature there, but the more 17 elaborate information could be available and found at a website 18 19 for the more sophisticated person who probably would 20 have a computer to look it up. 21 DR. WILKINS: I would just state that I 22 agree with Dr. Rosenbloom's comments earlier and don't

have anything additional to add.

DR. EVERETT: James Everett. Certainly some information about performance should be included. Obviously you would not put the raw data in there, but once a responsible manufacturer develops a kit, they should stratify the data so that if there are obviously certain circumstances where the kit does not perform well, then that information should be there, and almost anybody can understand that.

For instance, if you are going to do the test on the North Pole, it is freezing and it is outside, and you do the test and it doesn't work.

Most people can understand that, and once the data is evaluated, those kinds of things will usually surface without a lot of effort.

And at the same time, they do affect performance, and in a sense some of that kind of performance information should be included. I don't think we should just assume that they wouldn't understand anything, but perhaps they don't have to understand everything.

DR. BUSH: I concur with Dr. Rosenbloom

and Dr. Henderson on their approach. Thanks.

MR. REYNOLDS: Stan Reynolds, and I also agree with Dr. Rosenbloom and Dr. Henderson, and the idea of a website or 800 number, where people could call and get additional information and clarification, and where if they did have a question that they could just get a simple clarification from someone over the telephone.

DR. LASKY: Fred Lasky. Under the stressful situation of the last round, I can answer this question partially. I would like to comment on what Dr. Gutman said. We also have found that it is like threading the eye of a needle to put in just the right amount of information from a labeling standpoint.

In general, I believe we need to be very clear on how a kit should be used, the procedures and under what conditions, as Dr. Everett mentioned. What the results actually mean in terms that are understandable to the lay user, so that we don't confuse the user with a lot of information that he or she might have to go to a professional to help

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clarify.

And thirdly I agree that if additional information is requested that it should be available, and I think of the kind of information that we currently put in inserts, and instructions for us, as we do with 510K products; and that being available if requested I think is very, very appropriate, because these sort of tests, over-the-counter tests, are used often times -- and if you will excuse the expression -- very sophisticated users, because they are easy to use and often times very cost effective because of things like time and through-put and all the other things that we are all aware of.

DR. KROLL: Thank you. We have one more question and that is question number seven.

DR. COOPER: Should only those devices with SAMHSA cutoffs be eligible to be cleared for OTC use and that is the last question.

DR. LASKY: Can I get a clarification from Dr. Bush on what are SAMHSA's objectives? I am familiar with some of the requirements, but I don't frankly know why they are there, and I think that

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	would be helpful in our discussion.
2	DR. BUSH: SAMHSA's objectives for
3	including the drugs that are on our testing panel?
4	DR. LASKY: Yes, and the mission also.
5	DR. BUSH: The mission, simply stated, in
6	the form of then President Reagan's executive order in
7	September of 1986, when he said there will be a drug
8	free Federal workplace. We are the largest employer
9	in the world, and we can make this happen and offer
10	employees a helping hand.
11	With that broad brush statement said, then
12	everybody had to interpret what does a drug free
13	Federal workplace mean. So the focus was placed on
14	illegal drugs of abuse, hence the classes of drugs
15	that were established then that remain today, and that
16	is marijuana, cocaine, PCP, opiates, and a focus on
17	heroin, and Tylenol with codeine compounds, and
18	refocused our efforts on heroin, the illegal drug-of-
19	abuse.
20	And amphetamines, and now we are looking
21	to broaden our horizon to include MDMA, MDA, MDEA, in
22	that broad brush, illegal drugs of abuse. And so when

asked, well, why not include benzodiazapines, barbiturates, and we have been asked this multiple 2 3 times. 4 We interpret our mission as not to look at diversion or misuse of prescription drugs, and so we 5 focus only on illegal drugs of abuse. So the classes 6 7 are marijuana, cocaine, PCP, opiates, morphine, 8 codeine, and then amphetamines. 9 DR. KROLL: Dr. Lasky, do you have any 10 comments on question seven? 11 DR. LASKY: Actually, thanks, Dr. Yes. 12 Bush. That was really very helpful. Based on that and comparing that to the mission of the FDA, I don't 13 14 think that these guidances should be restricted to 15 those drugs because of the fact that there might be other uses and reasons that over-the-counter testing 16 would be helpful for other classifications of drugs. 17 1.8 MR. REYNOLDS: Stan Reynolds, and I pretty much agree with Dr. Lasky sitting here. There could 19 be other drugs, such as LSD, and things like that, 20 21 that a parent might want to be able to test their 22 child for, and someone may have a very good kit for

So we should have the ability to look at some 1 of these other things. 2 DR. BUSH: Donna Bush. We would love to 3 find that marvelous LSD kit. 4 Bring it on, please. 5 The short answer is please expand the panel. There is multiple need out there for plenty more than just the 6 7 SAMHSA-5. Thank you. 8 DR. EVERETT: I agree. 9 DR. WILKINS: I agree. 10 I agree that the panel should DR. KURT: be expanded, but I think those that are not the SAMHSA 11 12 drugs, the cutoffs as they are stated for kits, should be stated how they were arrived at by, say, 13 14 academic panel, et cetera, et cetera. 15 DR. KROLL: Martin Kroll. I agree. Also, 16 I think that it should be very clear if you are 17 looking at a drug that is not an examined a lot with other methods that there are good reference methods 18 19 for it. 20 DR. MANNO: I agree with Dr. Kroll, and I agree with Dr. Bush. I might suggest that on the more 21 obvious, the next five, that we have any database on, 22

	that you could refer to the College of American
2	Pathology, and the American Association of Clinical
3	Chemistry has a database that could provide us a good
4	starting point for establishing cutoffs, because they
5	have had an accreditation program for a while.
6	I don't know whether I totally agree with
7	all of them or not, but at least it is a point to
8	start at.
9	MR. LEWIS: Sherwood Lewis. I have
10	nothing.
11	DR. HENDERSON: I certainly think that
12	this panel should be expanded to those other than what
13	is included in SAMHSA.
14	DR. ROSENBLOOM: Yes. I mean, yes, I
15	agree with everybody.
16	DR. KROLL: Very good. Dr. Gutman, do you
17	have any more questions that need to be clarified on
18	this issue?
19	(No audible response.)
20	DR. KROLL: I would like to thank the
21	panel for going through this succinctly, and is there
22	any issue that any panel member would like to clarify
97 (775)	

in any of their comments? Now is a good time to do it. 3 DR. WILKINS: Actually, I want to clarify a comment that I made before the break, and that was 4 the issue of distinguishing between the labeling 5 guidelines on home-use kits, versus insurance and 6 7 sports testing. And the issue of confirmation 8 testing. 9 It was my intent to say that I thought it should be clearly labeled whether the intent of the 10 what the intended use was 11 kit 12 manufacturer is what I meant there. I did not mean to imply that confirmation testing should not be done in any of those settings. 15 It was my position that I felt that confirmation testing should occur in all of those settings. However, I think that the kit insert or package insert should clearly state what the intended purpose of the kit is, or the setting in which it should be applied, because I think there may be interpretation issues associated with that that the

consumer might need to be aware of.

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DR. KROLL: All right. Any other panel 1 members have comments? If not, at this time, since we 2 have some time left, if there is some people among the 3 public observers, if they would like to make a very 4 short, brief comment, limited to about maybe 3 or 4 5 6 minutes, they can make it at this time. 7 MR. AROMANDO: Bob Aromando. As Ι 8 mentioned earlier, I am an independent consultant. just wanted to address 1 or 2 points that were 9 mentioned this afternoon. Just as an example, if we 10 went back to question eight, where it is stated that 11 visually read devices frequently render positive 12 13 results well below claimed cutoff. Well, this also occurs in instrument based 14 15 tests, and Donna Bush, of all people, would know that 16 this does occur, since these instruments rely daily on calibration curves that tend to drift from one hour to 17 18 the next. So this is fact. 19 Secondly, if a visual test calls samples 20 positive below the cutoff, the confirmation test will 21 usually agree, and I use cocaine as an example, which 22 has a 300 nanogram cutoff value, and if some of these

visual tests are picking up positives at 200 nanogram, the cutoff value for confirmation tests is 150 nanogram. So it will pick it up, and there is no question about it that it will confirm the result.

The other issue that I wanted to make was that I don't think -- and unless I heard something differently here, nobody is disagreeing that confirmation tests should or should not occur. We all agree that they are absolutely extremely important in every single case.

But I also heard some comment about confirming negative results, which is probably physically impossible in this country considering that 90 percent or more of drug test results are negatives. I don't think any lab in this country is equipped to confirm every negative result that potentially could be out there.

There also seems to be concerns specifically about confirming screen results in the workplace and it must be known that just about every State in this country requires drug testing results to be confirmed before any action takes place.

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So there are State laws already in place to protect employees, and there are also contracts that require confirmation testing as well. So there is no disagreement here.

The other thing that I would like to just go back to, is that early on in the day there was some statement about on-site testing being more expensive, and I think it was Donna Bush who may have said that.

Well, perhaps that may be the case, but a lab based test is extremely, and I go back to my statement earlier where when labs are allowed to dilute or water down reagents for the sake of economic purposes, certainly they are going to expensive.

But at the end of the day, if you look at the total cost of ownership on on-site drug tests, it is less expensive, because the results are immediately available, especially in workplace environment, where a candidate can be hired immediately upon a negative result, versus several days for a negative result from a laboratory. you.

DR. KANG: Thank you, Dr. Kroll and panelists. I am Jemo Kang from Princeton BioMeditech Corporation. We make about 42 products, FDA-cleared products, all point-of-care direct assay.

And we are more acutely aware of the problems with assays, and first I would like to make some comments on confirmation. If we package products and make consumers aware of the content, my question is what are they buying.

Those test kits may cost under \$20, and if you include confirmation requirements, it may go into \$30 to \$50. What are the customers paying for? And these issues about benefits and harm issues, can the FDA make this available to customers.

The clear intent is to make this program widely available at a reasonable cost. To me perhaps the national goal of deterring drug use. If the test unnecessarily, because of confirmation requirements, cost twice or three times -- and if they have to pay \$40 or \$50 for tests, many of the customers may have to think about whether they want to buy test kits to test their children, or they would like to buy a bag

of groceries to prepare for supper.

It is a difficult issue and decision, and I think the one object to make this test widely available, readily available to customers, is we are not meeting that goal somehow.

And also from the point of the manufacturer, there is a tendency of misusing the confirmation issue, and currently I am hearing from many other people that if they put over-the-counter drug tests requiring confirmation, they are expecting perhaps below 50 percent of the tests will come back for confirmation.

That means that another 50 percent may never send for confirmation. Those people who do not send in for confirmation, they are also paying for this confirmation test.

In case the test results are negative, they are also penalized to pay for this confirmation test. So my proposal is whether it would be possible to make this over-the-counter product available a different way. One way is packaging it as a purely drug test, and then make confirmation tests available

on the shelf to make it optional.

If that doesn't meet FDA's requirements to ensure safe and effectiveness of this test, perhaps co-sharing, sharing the costs or sharing the bottom with the manufacturer may be one option.

If a confirmation test requirement may cost \$30, perhaps the manufacturers could share half-and-half. Therefore, it may be possible to use the test price lower to customers, and that might actually help to make this test more widely available.

If the packaging says we are detecting the presence of drug rather than -- what was the language again -- well, rather than the impairment of the individuals. That says two things. We are concerned about concentration or presence of drugs in the sample.

That to me is more of a legal issue, which later part addresses medical use. That may bring jurisdiction issues. If you are talking about simple presence or non-presence of drug, which does not apply any medical implications, why are you talking about that.

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And also as a manufacturer, I know some panel members raised the issue of whether we can make approximations about 50 percent, and whether we can tighten further. In principle, it is a very good idea to make the test highly accurate. But we have to think about what possible in the hands of a lay person. It is very, very difficult to distinguish at 50 percent cutoff level, a positive or negative issue in the eyes of many customers. It is not easy. I think tightening further is not really adding more benefit to the customers. Thank you very much.

DR. KROLL: Thank you. Dr. Lewis, did you want to make a comment?

DR. LEWIS: Sherwood Lewis.

DR. KANG: If I could add one more thing. The last question was about whether we should follow SAMHSA guidelines cutoff rather then if we want to include only SAMHSA or NIDA-5 drugs. I noticed that most of the panelists was talking about adding more drugs rather than talking about whether we should stick to the cutoff level of SAMHSA.

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	DR. KROLL: Dr. Lewis.
2	DR. LEWIS: Sherwood Lewis. I just wanted
3	to respond to the statement that was made regarding
4	the testing of all negative results. I did not
5	suggest that all negative results be confirmed. I was
6	saying what would happen should an individual want as
7	part of the package as purchased to have a negative
8	result sent out for confirmation. I certainly
9	appreciate that you can't confirm all negatives.
10	MR. AROMANDO: I'm sorry, but maybe it was
11	not you, Dr. Lewis, but there was and I am sure
12	that we have transcripts here, but it was almost
13	verbatim that it was suggested that all negatives be
14	confirmed.
15	And again that was my response, was that
16	that is physically and logistically impossible to
17	confirm all negative results.
18	DR. LEWIS: I thought you were referring
19	to my comment.
20	MR. AROMANDO: What was the intent of the
21	document.
22	DR. GUTMAN: The intent of the document

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was to look only at positives.

MR. AROMANDO: We are in agreement with that. And before I just give this to Dave, there was just one other last comment, and there was another comment made earlier that wet chemistry DATs are more accurate than on-site drug review tests.

So, first, I'm curious to know how many studies are we drawing our conclusion from, and in what peer review publications have these studies been

And secondly there are currently several dozen studies, including one that was commissioned by SAMHSA that have beyond a doubt established a level of performance of these on-site drug tests comparable to lab-based wet chemistry drug tests.

In another study conducted by Administrator of the U.S. Court, about 3 or 4 years ago, in fact the lab test for the amphetamines used in the study showed a 27 percent false positive rate, versus a zero percent false positive rate for some of the on-site amphetamine tests.

> Thank you. DR. KROLL: Can we keep our

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comments down to about 3 minutes.

MR. EVANS: I promise not to talk about legal issues. I flunked chemistry in high school, and that is the reason that I did not become a doctor. I come from a long line of doctors, but I learned enough to know about the scientific method.

And you are about to make a decision that is going to affect thousands of businesses and a lot of people, and I am asking you to slow the process down a little bit, and just ask if you have gotten the evidence that you all need.

I would urge you to have more hearings, and get more evidence, talk to the users of the onsite tests, especially DOT people that have been using them for years. I urge you to talk to the people from the United States Postal Service that are doing hundreds-of-thousands of these tests.

That may alter some of your decisions.

Again, look at the evidence and see what is really going on. Talk to people from all different categories -- industry, workplace, insurance, sports, and schools.

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We went through this process with SAMHSA over the last 2 or 3 years, and they kept an open mind. Many of the members of the drug testing advisor board had a mindset against on-site testing when we started.

I think we worked out something that is acceptable to us and acceptable to them, and that guarantees a good reliable test that will be used in a good reliable way. I would ask you to look at their studies and hear some of the same evidence that they heard before you make up your mind.

I am a little concerned that you are rushing to judgment. This guidance could come out within about 90 days and you may be making a mistake. I am a former bureaucrat, and I once exceeded my authority, and I got slapped by a court, and I never forgot it, and they were absolutely right. I had done the wrong thing.

I had not looked at the evidence when I made a decision as a bureaucrat. It is embarrassing and it made the front page of the legal newspaper in New Jersey with my photograph on it. So I am acutely

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sensitive to this, and I learned a great lesson from 1 2 it. And I would urge you to look at the 3 consumer protections that are already built in. 4 Ι don't think you have gotten enough evidence about 5 I don't think you have gotten enough evidence 6 7 about the intent of Congress. 8 Congress recently passed a law probating \$10 million for drug free workplace programs, and a 9 Congressional committee specifically said they wanted 10 on-site testing included in that. 11 So I would ask you to keep an open mind, 12 and walk through the process with us like SAMHSA did, 13 and I really think they came up with something that is 14 15 really going to protect everybody. 16 I promise to be very brief. MS. HOGAN: 17 DR. KROLL: Could you state your name, 18 please. 19 **HOGAN:** MS. Absolutely. My name is 20 Hogan, and I am a California licensed clinical toxicologist scientist. I have a seven year 21 22 history in working in the SAMHSA laboratory.

a product manager.

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Historically, I worked for Phamatech, which was the first over-the-counter cleared drug test. I have moved on to another in-vitro diagnostic manufacturer, but I probably have more direct experience talking to the end-user from these products than anybody, because I wrote the training manual for the support representatives that handle the toll-free number for Pharmatech.

I can tell you that my recommendation would be that we look at the package insert and maybe back up a little bit and explain why confirmation tests are needed. I think that the principle of immunoassay is something that escapes most consumers and lay people.

If you couch it in the manner that they understand why chemically similar compounds will react and that it is not necessarily -- it is a limitation of the assay, but it does not make the assay a bad assay.

I think that right now that things are couched in a manner that people think that the test is

not good. I know originally the term inconclusive was
used for a presumptive positive result.

Also, I think that it is important that toll free numbers in any over-the-counter product, particularly medical devices, are built and that they are administrated well in consumer feedback, particularly on a high stress level product like this, is extremely -- there are a lot of people that call and ask questions that are clearly stated in the package inserts, but that they just did not seem to understand.

And, Dr. Lewis, I can assure you that with Phamatech's product, the fact that the confirmation cost is built into it, there are numerous people that send their negative results in because they want that extra feeling of comfort.

So people do send negative results in. We have to explain to them why the intensity of the line was light, for example, and this is built into the assay.

We have to explain why light intensity was light, and sometimes it gets into a technical

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dissertation about cross-reactivities. 1 But I think that confirmation is relevant 2 I think it is relevant to have a mechanism 3 built in for confirmation testing to be done, but not 4 5 necessarily to include the cost of it. I don't think people truly understand the two step process of a drug 6 7 test when you get to a consumer individual. 8 DR. KROLL: Thank you very much. 9 Gutman, are there any other issues that we should address? Well, I think maybe you could submit those 10 11 in writing. 12 DR. KANG: I forgot to mention one comment 13 about Dr. Gutman discussed; including more information about the product. My suggestion is pregnancy and 14 15 ovulation tests on the market as an over-the-counter product, and our company has that product on the 16 17 Clinical guidelines do not 18 performance data in OTC product packaging, sir, and 19 that has worked guite well. 20 And from my experience, even if we give 21 more information, there will always be a lot of 22 questions, and we have an 800 number for customers.

receive a lot of telephone calls about 1 We 2 implications, and it seems to be working fine. 3 But adding more information, more 4 confirmation, more customer data in the packaging insert, is not necessarily helpful, and would probably 5 6 have to be made very, very small because of the 7 limited space in the packaging. 8 DR. KROLL: All right. Thank you for your 9 Dr. Gutman, do you have any questions or comments. comments that you would like to make? 10 DR. GUTMAN: No, I would like to thank you 11 12 all for bearing with us, and giving us this input. 13 DR. KROLL: All right. Are there any 14 other comments from the panel members? 15 DR KURT: Tom Kurt. I would like to comment that outside of the realm of the DOT, some 16 17 people used the word confirmation in a more broader 18 context, and tried to confirm by FPIA and other 19 methods. which are really not state-of-the-art 20 confirmations. So would like to 21 point out confirmation is really defined in your documents and 22

labeling.

DR. KROLL: Well, thank you very much. I would like to thank all the panel members for all their efforts today and thoughtful comments. And I would also like to thank all the staff members and especially Veronica Calvin, our executive secretary, who has been writing here like crazy, and all the other people involved with the FDA staff, Dr. Gutman, and everyone else. Thank you.

DR. ROSENBLOOM: I would like to request a change in the seating arrangement tomorrow.

MS. CALVIN: I have just a couple of comments to make before we leave. I just want to echo my thanks, and as Dr. Kroll indicated, to all the panel, FDA staff in particular, and the public speakers.

And if anyone was shy or has additional comments, as I think Mr. Evans alluded to, the comment period is open for 90 days after the notice of announcement in the Federal Register, which was around the beginning of November. So I guess that brings you to probably late January or early February.

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Also, if you found today's discussion to be very interesting, we invite you back tomorrow. The panel will be discussing a device application that detects drugs-of-abuse in hair. Thank you.

(Whereupon, the panel adjourned at 4:40

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Before:

CLINICAL CHEMISTRY AND CLINICAL

TOXICOLOGY DEVICES PANEL

Date:

NOVEMBER 13, 2000

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represents the full and complete proceedings of the aforementioned matter, as reported and reduced to typewriting.

Rebecca Dairs